

Congress of the United States  
House of Representatives  
Washington, DC 20515-3313

September 21, 2022

The Honorable Jennifer Granholm  
Secretary, Department of Energy  
100 Independence Avenue SW  
Washington, D.C. 20585

Secretary Granholm,

An August 9, 2022 report from National Public Radio (NPR) laid out, in detail, how the Department of Energy (DOE) wrongfully allowed the transfer of advanced, cutting-edge battery technology developed in a federally-sponsored laboratory to a Chinese company.<sup>1</sup> This development is highly alarming, and your department has a responsibility to provide Congress and the public with answers to important questions.

According to the report, researchers at the Pacific Northwest National Lab began working on a vanadium redox flow battery in 2006.<sup>2</sup> The battery was envisioned to have a significant storage capacity, and the prototype was able to power an entire house.<sup>3</sup> After six years and a \$15 million taxpayer financed research investment, UniEnergy Technologies was founded in Washington state in 2012 to license the DOE's vanadium redox flow battery patent and market the technology commercially.<sup>4</sup>

Shortly after launching, UniEnergy Technologies began fostering progressively closer ties with Chinese entities, eventually sublicensing the DOE-owned patent to Rongke Power, a Chinese firm.<sup>5</sup> At that point, even though U.S. law requires the license holders of DOE patents to substantially manufacture and predominantly sell the products in the U.S.,<sup>6</sup> UniEnergy and Rongke Power were primarily selling Chinese assembled batteries in the Chinese domestic market.<sup>7</sup>

DOE's license monitoring apparatus failed to identify and investigate the non-compliant sublicense given to Rongke Power for years. Later in 2021, UniEnergy contacted the DOE to fully divest themselves of the vanadium redox flow battery license, requesting permission to transfer it to the Dutch based firm Vanadis Power.<sup>8</sup> Even though that company does not

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<sup>1</sup> *Consider This from NPR: How The U.S. Gave Away Cutting-Edge Technology To China* (National Public Radio broadcast August 9, 2022), available at: <https://www.npr.org/transcripts/1116586600>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> 35 U.S.C. § 204

<sup>7</sup> *Consider This from NPR, supra* note 1.

<sup>8</sup> *Id.*

substantially manufacture batteries within the U.S. for sale in the U.S. market—Vanadis’s website makes clear that they plan to manufacture their batteries in China—DOE officials apparently approved the transfer expeditiously.<sup>9</sup>

China recently connected the world’s largest battery farm to its power grid.<sup>10</sup> All of the batteries in this 800MWh facility are Vanadis Power and Rongke Power vanadium redox flow batteries.<sup>11</sup> Thus, it is clear this battery farm would not exist without U.S. taxpayer funded research. It is unacceptable that DOE funded research facilitated China’s achievement of this strategic feat before America could build anything comparable. Consequently, I request that you respond with answers to the following questions no later than October 15th, 2022:

1. What is the DOE’s process for monitoring compliance by license holders with U.S. law and department regulations?
2. Is there special attention paid to license holders who foster close business relationships with Chinese entities?
3. How does DOE investigate its own oversight failures and what steps does it take to implement changes?
4. Is DOE aware of other research conducted in national laboratories being licensed or sublicensed to Chinese entities and, if so, how can these technology transfers be stopped?
5. What steps can DOE take to hold license holders who violate the terms of their license accountable?

Mistakes like allowing the scaling-up of cutting-edge, U.S. developed battery technology to occur in China instead of America cannot continue to occur. I expect your department to take concrete steps to prevent any further technology transfers to foreign adversaries.

Sincerely,



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Ted Budd  
Member of Congress

CC: Department of Energy Inspector General Teri L. Donaldson

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<sup>9</sup> *Id.*; Vanadis Power, *About Us*, <https://www.vanadispower.com/about/> (last visited Aug. 10, 2022).

<sup>10</sup> Andy Colthorpe, *First Phase of 800 MWh World Biggest Flow Battery Commissioned in China*, ENERGY STORAGE NEWS (July 21, 2022), <https://www.energy-storage.news/first-phase-of-800mwh-world-biggest-flow-battery-commissioned-in-china/>.

<sup>11</sup> *China Builds the World’s Largest Lithium-free Battery*, EN:FORMER (May 17, 2021), <https://www.en-former.com/en/china-builds-the-worlds-largest-lithium-free-battery/>.